

Supplemental Material to:

**Nicolas Widman, Suhua Feng, Steven E Jacobsen, and
Matteo Pellegrini**

**Epigenetic differences between shoots and roots in
Arabidopsis reveals tissue-specific regulation**

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Supplementary Figure – Overlap Between Differential Genes

RT/STexp - Expression: ≥ 20 -fold difference

RT/STmethyl - Methylation: Average CG methylation level difference of 10% (on an absolute scale, not relative to the methylation level of the same gene between root and shoot)

RT/STnucl - Nucleosomes: ≥ 2.5 -fold difference

p values: See supplementary table 1

Supplementary Table 1 – p values of Overlap Between Genes Based on Hypergeometric Distribution

Differential Group Overlap	p value: Genes	p value: Transposons
Root Exp. + Shoot Methyl.	9.1590e-6 *	7.8420e-1
Root Exp. + Shoot Nucl.	1.0741e-9 *	8.5832e-1
Shoot Methyl. + Shoot Nucl.	4.6629e-15 *	5.7217e-8 *
Shoot Exp. + Root Methyl.	2.6458e-6 *	8.3313e-1
Shoot Exp. + Root Nucl.	2.9187e-2	9.7183e-2
Root Methyl. + Root Nucl.	3.8458e-5 *	9.7684e-4 *

* Significant: $P < 0.025$

Root(Shoot) Exp. - 20-fold higher expression in roots(shoots)

Root(Shoot) Methyl. - Methylation level 10% higher in roots(shoots)

Root(Shoot) Nucl. - 2.5-fold higher nucleosome density in roots(shoots)

Supplementary Table 2 – Extensin Genes and Differential Gene Overlap

Differential Group Overlap	Genes
Root Exp. + Shoot Methyl. + Shoot Nucl. Extensin Genes	AT1G23720, AT2G24980, AT3G28550, AT3G54580, AT3G54590, AT4G08410, AT4G13390, AT5G06630, AT5G06640
Root Exp. + Shoot Methyl. Extensin Genes	AT5G35190
Root Exp. + Shoot Methyl. + Shoot Nucl. Other Genes	AT4G08380, AT4G08400

Root Exp. - 20-fold higher expression in roots

Shoot Methyl. - Methylation level 10% higher in shoots

Shoot Nucl. - 2.5-fold higher nucleosome density in shoots